

Connections

A Publication for Employees of the Missouri Department of Transportation

March 14, 2014

Special 100th
Anniversary Edition

Archives

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It's been a great year to reflect on our agency's history and how we have evolved over the last 100 years. This special edition of Connections captures some of the ways we've celebrated 100 years of being MoDOT.

Celebrating Service and Innovation

by Dave Nichols

As we come to a close on the 100th year of MoDOT, I'd like you to take a moment to pause and reflect on what we have achieved on behalf of the citizens of this great state.

Missouri serves as a transportation crossroad for the entire nation. After 100 years of keeping people and goods moving, Missouri is known as a leader in innovation, quality and efficient use of funds.

I am immensely proud that MoDOT has a national reputation for our innovation in solving complex transportation problems and providing high quality, efficient use of tax dollars. It is the work you do every day that allows us to excel and lead the way.

It's safe to say that the Show-Me state will retain its position as the crossroads of the United States, and MoDOT will be here for another 100 years, in some form or another, leading the nation in innovation, efficiency and customer service.

In another 100 years, perhaps the MoDOT employees of 2113 will even celebrate the anniversary with a look back at the tow plow, the diverging diamond interchange, and all the innovations we've introduced to improve transportation in Missouri.

This is a special edition of Connections, exclusively focused on where we've been over the last 100 years and what we've accomplished. I hope you enjoy the look back through our history and recognize the magnitude of our accomplishments over the years.

Thank you for all you do, and be safe,
Dave



Centennial Year Sealed For The Future

by Linda Wilson Horn

The end of MoDOT's centennial was sealed with time capsules at each district office and at the Central Office. Items were collected to capture the images, documents and mementos representing who MoDOT is today. These items will give a glimpse of who we were as an organization when the future MoDOT staff open the time capsule in 50 years.

District's could add whatever they wanted to the time capsules. At Central Office, the time capsule included photos of MoDOT equipment, buildings and people; a state map; a financial snapshot; Missouri Highways and Transportation Commission agenda and bid letting document; Blueprint for Roadway Safety plan; hard hat, vest, and safety glasses; bottle of glass beads used in striping; temporary construction striping tab; concrete and asphalt core samples; Tracker; MoDOT's Vision for Missouri Transportation planning document; 100th anniversary t-shirt, pin and hard hat sticker; and a variety of brochures and campaign materials.

The boxes will be kept in the administration area of each district and Central Office and are marked to be opened in 2063.



Northeast District employees involved in the time capsule included from left to right Assistant District Engineer Kevin James, District Engineer Paula Gough, New Florence Senior Maintenance Worker Lambert Gruenloh, Safety and Health Manager Shari Dye, Warrenton Maintenance Crew Leader Ronnie Freese, and Transportation Planning Manager Tom Batenhorst.



The St. Louis District sealed its time capsule at the district staff meeting by the following employees, from left to right Assistant to the District Engineer Mollie LeBlanc, Mississippi River Bridge Director Randy Hitt, Customer Relations Manager Marie Elliott, District Traffic Engineer Jeanne Olubogun and District Engineer Greg Horn.



Kansas City District Engineer Dan Niec and staff filled and sealed their time capsule to be opened on the 150th anniversary. Items included in the capsule were a copy of the Statewide Transportation Improvement Program, current PPE and examples of technology we use in every day work. Dan requested one of the most tenured, and one of the newest employees to help fill the capsule.



Baby Bob was on hand to help seal the Northwest District's time capsule, along with Assistant District Engineer Tony McGaughy, Area Engineer Mike Rinehart, Area Engineer Tonya Lohman and District Engineer Don Wichern.



Southwest District Engineer Becky Baltz places items in the time capsule preparing for the sealing.



Central Office employees look over the items for the time capsule just before Chief Financial Officer Roberta Broeker seals up the box. More photos on [Flickr](#).



The Central District’s newest employees had the honor of sealing the district time capsule. They might be around in 50 years when it’s reopened. Pictured left to right are Materials Inspector Steven Amburn, Highway Designer Tyler Frazier, Highway Designer Cyrus Miller and Highway Designer Quintin Stampley.



Southeast District Engineer Mark Shelton discusses each of the items placed into the time capsule during the February management team meeting.

Missouri Marks Birthplace of the Interstate

by Linda Wilson Horn

There is no question that the creation of the interstate highway system has been the most significant development in the history of transportation in the United States. The more than 40,000 miles in the system have been significant factors to our economic well-being, to the mobility of the American population and to the way communities have located and grown across the land. Missouri’s 1,300-plus miles of Interstates 70, 44, 55, 64, 29, 35 and 49 are key components of the national system providing critical middle-America links to the national system.



Logic might tell you that construction of the nation’s interstate highway system began on either the east or west coast and meandered across the country.

But that’s not what happened back in 1956 after President Dwight D. Eisenhower signed the Federal-Aid Highway Act. Instead, work began in America’s heartland – in Missouri and Kansas.

Missouri can stake several claims to having the nation’s first interstate highway. On Aug. 2, 1956, Missouri became the first state to award a contract with the new interstate construction funds, inking a deal for work on U.S. Route 66 – now Interstate 44 – in Laclede County. As soon as the contract was signed, S. W. O’Brien, district engineer for the Bureau of Public Roads, called his headquarters in Washington, D.C., and confirmed that the contract was the nation’s first.

Also that day, Missouri awarded a contract for work on U.S. 40 – now I-70, the Mark Twain Expressway – in St. Charles County. Cameron & Joyce Inc. of Keokuk, Iowa, began

construction on Aug. 13, another first for the Show-Me State.

In November of 1956, Kansas completed paving a section of U.S. 40/I-70 west of Topeka (a project that was actually under way prior to the passage of the Federal-Aid Highway Act) that cemented its claim to the first interstate highway project.

Over the next nine years, I-70 was completed across Missouri with the final sections finished in Jackson and Lafayette counties in August 1965. Designed to have a life of 20 years, the oldest section of Missouri’s 251-mile I-70 is nearly 60 years old, while the newest section is approaching its 49th birthday.

Here are some other Missouri interstate facts you might find interesting:

- We currently have 18 routes that carry the interstate designation and account for 1,378 miles of the 33,890 miles included in Missouri’s total highway system.
- Even though the interstate system accounts for four percent of Missouri’s total highway system, it carries 41 percent of the state’s total traffic volume. Therefore, it is easy to see that the interstate system is a vital part of the overall transportation network in Missouri.
- Some of the most significant interstates in Missouri include:
 - I-70 – This interstate reaches across Missouri from the Illinois state line to the Kansas state line. It is the nation’s fifth largest east-west corridor, passing through 10 states from Maryland to Utah.
 - I-29 and I-35 – Both interstates are congressionally designated high priority corridors



- that handle traffic in northern Missouri.
- I-44 – This interstate stretches across the south central part of Missouri and is a major corridor traveling from the Midwest to Texas.
 - I-55 – This interstate runs from the Midwest to the Gulf of Mexico.
 - I-49 – This interstate was the most recent to be built in Missouri, opening in 2012.
 - The shortest interstate in Missouri is I-72 in Marion County. It is 2.05 miles long.
 - I-44 is the longest interstate in Missouri. It is 290 miles in length.
 - Missouri also has numerous interstates located in the St. Louis and Kansas City metropolitan areas that serve a vital role in the daily transportation needs of Missourians and the traveling public.

See more on the website - [Interstate Highway System](#).

Employee Generosity Shines For Centennial Food Drive

by Linda Wilson Horn

One of the closing events for MoDOT’s centennial allowed employees to give back to the communities they live in. A food drive was hosted in each district and at the Central Office. Food banks always need donations, but post-holiday times, as well as periods of bad winter weather, often cause donations to be down at this time of year. MoDOT is a service agency to Missourians and the centennial food drive gave employees the chance to show they are all about people’s transportation needs, but they also care for Missourians’ physical needs.

Employees were asked to have everyone bring one, and for work groups and area teams to consider bringing 100. In total, MoDOT employees donated roughly 11,500 items to food pantries across the state.



Customer Relations Coordinator Linda Wilson Horn, left, and Customer Relations Executive Assistant Cathy Scribner box up the Central Office food items to be delivered to the Samaritan Center in Jefferson City. More photos on [Flickr](#).



Food items were piled high in the Central Office lobby before being delivered to the Samaritan Center in Jefferson City. More photos on [Flickr](#).



Norval Snider, intermediate maintenance worker at Northeast District's Macon maintenance facility, helps deliver food donations to the Macon County Food Pantry. Food items were also delivered to the Canton Council of Church's Food Pantry, St. John's Food Pantry, Douglas Community Center and the Warrenton Food Pantry.



Employees in the Central District donated to five different food pantries throughout the area including the Food Bank for Central Missouri, the Samaritan Center, the Miller County Food Bank, the St. James Caring Center and the Lighthouse Food Pantry.



Southeast District Customer Relations Manager Nicole Thieret drops-off donations for the Sikeston Food Pantry with Joyce Wollenburg, Food & Nutrition Services Coordinator for the Southeast Missouri Food Bank.



Texas County Food Pantry Maintenance Manager Robert Malota, (far right) accompanied by volunteers Danny Brown and James Barnett, accepts food donated by the Southeast District.



Employees in the Southwest District donated to the Ozarks Food Harvest, which serves all 21 counties within the district. The SW District's Planning Team donated 164 items to the food drive, more items than any other team – over 27 each! Pictured left to right are Andy Seiler, Frank Miller, Chad Zickefoose, Julie Zibert, Vicki Wells, and Jim McDiarmid.



Senior Design Technician Jennifer Riegel and Highway Designer Kenneth Burton show the food collected by St. Louis District employees for the St. Louis Food Bank.



Kansas City District teams pulled together more than 5,000 food units. The Construction and Materials team hosted a friendly competition between offices, and one RE office alone donated more than 2,500 items. The Design and Right of Way team also went all out for the drive. They not only donated canned goods, but also collected funds to purchase almost \$300 worth of food for the drive. Together with Barrel Bob, the donations made an impressive display of our MoDOT family's generosity. The food items were donated to Harvesters-The Community Food Network.



The Northwest District Office collected food and cash for the Second Harvest Food Bank. Over 900 items were collected across the district from drives held at the District Office, Brookfield maintenance and Chillicothe Project Office.

A Little History

MoDOT Centennial Time Line

On March 22, 1913, the Missouri Legislature created the Missouri State Highway Department. Almost immediately afterwards, construction began across the state to link adjoining county seats with paved and maintained roadways.

Over the decades MoDOT has managed to keep Missouri moving. Today the state serves as a transportation crossroads for the entire nation.



Here are the first few milestones of MoDOT history. To see the complete time line click here - [Centennial Time Line](#).

To view a photo gallery of historical MoDOT images, [click here](#).

- 1913** - Missouri legislature forms State Highway Department
- 1916** - Congress passes federal highway act, which makes federal funds available to states based on area, population and postal road mileage.
- 1917** - Missouri Legislature passes Hawes Law so Missouri can receive federal funds and also creates State Road Fund and a four-member State Highway Board.
- 1918** - State Highway Department produces [one of the earliest Missouri road maps](#). (See more old Missouri maps on the [map archive page](#)).

- 1920** - \$60 million bond issue passes to "get Missouri out of the mud."
- 1921** - Formal department operations are established when the Legislature passes the Centennial Road Law, creating a four-member [State Highway Commission](#) and the positions of secretary, chief engineer and chief counsel.
- 1924** - Proposition 5 passes, creating the state's first fuel tax, 2-cents per gallon.
- 1928** - Missouri becomes the first state to earmark and protect funds for highway purposes.
- 1931** - [State Highway Patrol is created](#).

Looking Good For Our Age

by Jim Dickson

For an agency celebrating its 100th birthday, MoDOT doesn't show its age. Common logic would say a 100-year-old organization would be steeped in tradition and slow to change. And while MoDOT may have been that organization 25 years ago, its ability to transition from a wait-and-see attitude to a leader of innovation has made it a national poster child for successful DOTs.

Pockets of innovation have always been part of MoDOT, but making innovation part of everyday business took some bold steps. One of those first steps was including innovation as one of the department's core values in 2005. In 2013, that core value was rewritten to read, "Be Bold." A companion piece explaining how to live MoDOT's values offers the following advice to employees:

- I embrace new ways of doing work. I will be flexible and support changes that help us all get better.
- I take risks and accept failure. I will use my failures to identify ways to get better.
- So we can be innovative in our pursuit of excellence. I will push myself and others around me to not be satisfied with average results.



Those values have been more than posters on conference room walls. Innovation has been supported through Tracker, the department's performance measurement system, cascading through the organization and linked to employee performance reviews. Executive managers regularly talk about the importance of innovation to the success of the organization. Department executives, managers and supervisors meet each quarter to discuss department performance at Tracker review meetings. Innovation is a common topic during these discussions.

But for an innovations culture at MoDOT to succeed, it had to become part of the core of the department's work.

In 2005, MoDOT incorporated the value engineering philosophy into its daily operations through Practical Design. The philosophy challenged engineers to throw out the standard "cookbook" design and specifications to allow for more innovation to deliver the same project benefits at a reduced cost. The program has flourished at MoDOT by saving more than \$1 billion.

The Practical Design approach was extended to the department's engineering policies and specifications. A group of design employees began working in 2005 to revise all department policies and specifications to allow for more innovation. In 2007, the Engineering Policy Group was officially formed, and the department launched an online Engineering Policy Guide that consolidated all policies into one location and allowed internal and external practitioners to dialogue regarding successes and problems.

In 2013, MoDOT added an e-book of the department's specifications to keep the latest information in the hands of its employees

and contractors in the field or office.

In 2005, MoDOT’s research program was refocused to deliver innovations faster with more practical applications. This meant doing fewer multi-year research projects and instead looking for ways to improve the organization sooner. Consider the results achieved in just the past two years:

- The seven-year LED replacement program was spotlighted nationally in 2012 and is expected to save the department about \$239,000 in parts and labor costs each year.
- Geotechnical research helped shorten some drilled shafts that can save about \$45,000 per bridge or \$810,000 annually.
- Proper timing and frequency of diamond grinding pavements is expected to save MoDOT nearly \$1.8 million a year.
- And a research study of Diverging Diamonds interchanges showed a 46 percent reduction in vehicle crashes.

But innovations are not just on the engineering side of MoDOT.

The Solutions at Work program, began in 2006, recognizes employee innovations that are in use and producing desired results. To date, the program has evaluated more than 800 employee innovations and approved 117 best practices in all areas of department work. A spin-off program, Innovations Challenge, will showcase 54 of the department’s top innovations for the year on April 8 in Springfield.

MoDOT’s innovations have helped stretch tax dollars further and filled trophy cases throughout the agency. Consider these national recognitions in just the past few years:

- MoDOT had the first diverging diamond interchange in the U.S. It was recognized as one of the top 10 innovations by Popular Science magazine.
- The Safe and Sound Bridge replacement program received the 2013 People’s Choice Award as part of America’s Transportation Awards.
- The Shared 4-Lane design recently won the Governor’s Award for Quality and Productivity in 2013. The design delivers the safety and mobility impact of a four-lane highway with alternating passing lanes.
- The dynamic model for design-build on three of the agencies largest projects ever (new I-64, KCI CON and the new Mississippi River Bridge) has received numerous national, regional and state awards. And Missouri’s approach for workforce diversity on those projects has been shared by the FHWA as a national model.

It’s an impressive resume that continues to build. At age 100, MoDOT’s employee innovations are showing any signs of slowing down. Clearly, the “Show-Me” state has become the “Show-Them” state.

For more on innovations - <http://wwwi/intranet/cr/SolutionsAtWork/default.htm> and <http://wwwi/intranet/cr/SolutionsAtWork/Innovations.htm> (links work for active employees only).



What does a diverging diamond look like? Watch a short video of how traffic flows on I-44 and Mo. 13 in Springfield - [watch video](#).



The Shared 4-Lane design won the Governor’s Award for Quality and Productivity - [watch video](#).

100 Years of Maps



So what's one way a DOT celebrates 100 years of existence? By publishing a special centennial state map, of course. The image above is a collage of some of the map covers MoDOT has published over the years.

You can view all the state maps, dating back to 1918, on the historic archive section of the website at <http://www.modot.org/Missourimap/>.

Commission Meeting Summary

by Robert Brendel

NOTE – While MoDOT’s centennial is coming to a close, the 100th year of the Missouri Highways and Transportation Commission is still on the horizon. The MHTC’s 100th anniversary will be observed in 2021.

There was a changing of the guard at the March meeting of the Missouri Highways and Transportation Commission in Jefferson City. Commissioners Stephen Miller of Kansas City and Joe Carmichael of Springfield switched places, with Miller now serving as chairman and Carmichael as vice chairman.

“We all owe Joe Carmichael a great deal of thanks for his leadership and service to Missouri,” Miller said. “Joe did a tremendous job leading us the past year with a steady hand and a certain understated manner that allowed the Commission to navigate some difficult issues.”

The Commission also heard a disturbing report from State Bridge Engineer Dennis Heckman that detailed the challenges MoDOT faces in the future with a mounting inventory of deficient bridges. The 10,364 bridges on the state system require continuous maintenance. The average age of a bridge in Missouri is 45 years, and Heckman said most of them were designed for a 50-year life.

“Without additional resources, the condition of bridges on the system will suffer, just like the rest of the system,” Heckman said. “And the stark reality for bridges is that more will be weight restricted and closed in the future.” The consequences are that economic development and mobility will be compromised. Heckman said about 120 bridges fall into the poor category each year.

State Design Engineer Eric Schroeter reported on the bid opening of February 21, in which MoDOT received 172 bids on 45 calls. The Commission awarded all to the low bidder except for a Kansas City District project that was deemed to have excessive bids. Schroeter also reported that MoDOT won’t hold a letting in April, because of an insufficient number of jobs. Commissioner Gregg Smith said “it’s bad for the construction industry at this point in time, and it’s unfortunate that the situation will only get worse.”

During public comments, the Commission heard from Shawn Archambault, whose non-profit organization, “One Curve at a Time”, honors his daughter, Kaela, who died in a crash on Route FF in Jefferson County in 2010. “The emotion he exhibited humanizes our work and makes us want to do more – fix dangerous curves, add shoulders and guard cable – but our lack of funding is not abstract,” Chairman Miller said. “It truly limits what we want to and need to do.”



Committee Reports:

Legislative Committee – Commissioner Carmichael reported House Joint Resolution 68 passed the Rules Committee on February 20, and now awaits action by House Speaker Tim Jones to place it on the calendar for floor consideration. HJR68 would give Missourians the chance to vote for a temporary one-cent sales tax for transportation that over 10 years would generate additional revenues to enable MoDOT, cities and counties to deliver projects that make Missourians safer, create jobs and improve our quality of life. He said the Commission is encouraged the resolution could reach the floor following the Legislature’s Spring Break that runs from March 13-24.

MoDOT and Patrol Employees’ Retirement System Board of Trustees – Commissioner Suelthaus reported on the February 27 MPERS meeting at which the board extended the contract of its actuary and elected Joe Carmichael as chair of the board of trustees and Col. Ron Replogle of the Highway Patrol its vice chair. Suelthaus said total MPERS assets have climbed to about \$1.8 billion.

Connections

The mission of Connections is to be a source of Missouri Department of Transportation news and feature articles that connect employees statewide.

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Comments & Suggestions

We would like to hear from you. Send comments and suggestions to Tammy Wallace at Tammy.Wallace@modot.mo.gov.

Mission

Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri.

